



Early Journal Content on JSTOR, Free to Anyone in the World

This article is one of nearly 500,000 scholarly works digitized and made freely available to everyone in the world by JSTOR.

Known as the Early Journal Content, this set of works include research articles, news, letters, and other writings published in more than 200 of the oldest leading academic journals. The works date from the mid-seventeenth to the early twentieth centuries.

We encourage people to read and share the Early Journal Content openly and to tell others that this resource exists. People may post this content online or redistribute in any way for non-commercial purposes.

Read more about Early Journal Content at <http://about.jstor.org/participate-jstor/individuals/early-journal-content>.

JSTOR is a digital library of academic journals, books, and primary source objects. JSTOR helps people discover, use, and build upon a wide range of content through a powerful research and teaching platform, and preserves this content for future generations. JSTOR is part of ITHAKA, a not-for-profit organization that also includes Ithaka S+R and Portico. For more information about JSTOR, please contact support@jstor.org.

XXIII.

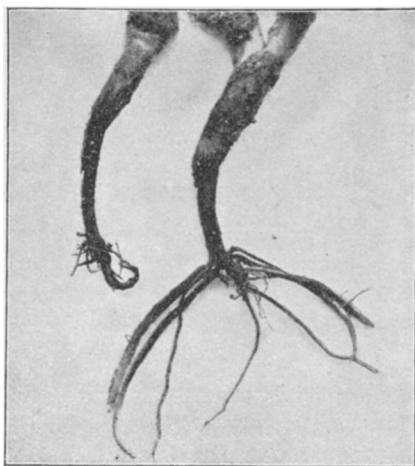


FIG. 1.

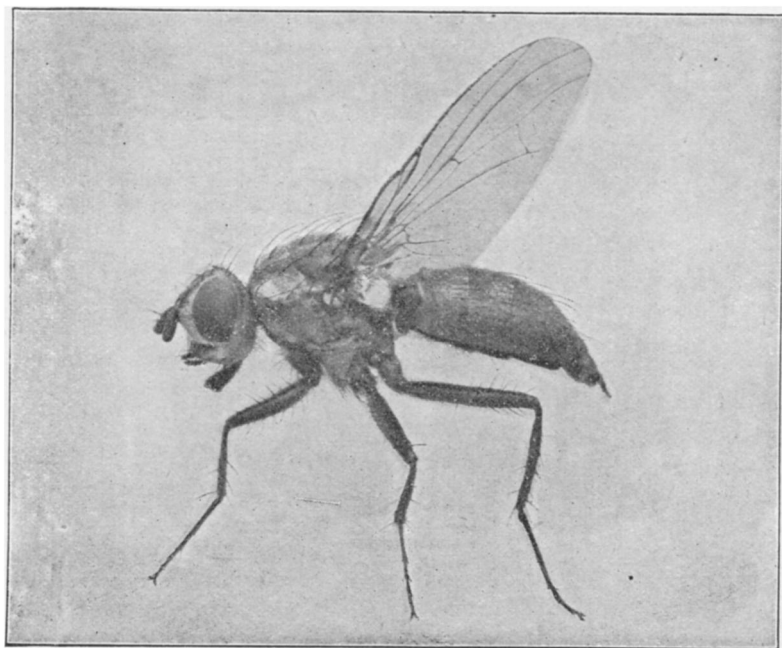


FIG. 2.

Cabbage Root Maggot:

1, Injured Cabbage Roots, $\frac{1}{2}$ natural size; 2, female fly, Magnified.
After Slingerland.

ENTOMOLOGY.¹

The Cabbage Root Maggot.—In Bulletin 78 from the Cornell University Experiment Station Mr. M. U. Slingerland has brought together the most elaborate account yet published of *Phorbia brassicæ* Bonché. This insect has long been known as one of the most destructive garden pests. It was introduced into "this country from Europe early in the present century, perhaps first appearing in Massachusetts, from whence it gradually spread north, west, and south into the neighboring States. In about 25 years it had reached Maine on the north, Maryland on the south, and Michigan on the west. In 20 years more it had entered Colorado, reached the Pacific Ocean, and passed through South Carolina into Alabama. In a little more than half a century it had thus spread over the greater portion of the United States and Canada. Doubtless it is now present in injurious numbers in every State where its food-plants are grown to any extent.

"Whenever the pest obtains a foot-hold, it usually appears in alarming numbers year after year if its food-plants continue to be grown in the neighborhood. In England it has been very destructive almost every year since 1880. In the United States, the gardeners in this State (especially in the neighborhood of New York City, over the line in New Jersey and throughout Long Island) and in Michigan have suffered severely from the pest almost every year, as the records show, for the past 25 years. Many market gardeners on Long Island have abandoned the growing of early cabbages, cauliflowers, and radishes on account of this formidable pest. In 1887, Peter Henderson said: 'tens of thousands of acres the past season have been, of both cauliflower and cabbage, utterly ruined by maggots.' In Canada the pest has been especially injurious in 1885, 1887, 1890, 1892, and 1893; in 1892 it was considered the most destructive insect of the year."

Concerning the food-plants of the insect, Mr. Slingerland says "that it has been recorded in Europe on the cabbage (including the cauliflower, borecoles, etc.), the radish (*Raphanus sativus* and *radiola*), the turnip (*Brassica rapa*), the ruta бага and swedes (*Brassica campestris*), and on stocks (*Mathiola*); the reported feeding on clover roots and manure needs further confirmation. In this country the Cabbage Root Maggot feeds upon most of the above plants and on at least two common Mustard-like weeds, the Common Winter Cress (*Barbarea*

¹ Edited by Clarence M. Weed, New Hampshire College, Durham, N. H.

vulgaris), and the Hedge Mustard (*Sisymbrium officinale*); the maggots infesting onions, beans, and raspberry canes are different insects, distinct from each other and from the Cabbage Root Maggot."

The presence of the pest, where it occurs in considerable numbers, is indicated by a checking of the growth of the plant, a tendency to wilt badly under a hot sun, and a sickly bluish cast to the foliage. The way in which the roots are injured is shown in the upper figure of the accompanying plate.

Mr. Slingerland discusses the life history of this and allied species, and treats of the methods of preventing its injuries at considerable length, concluding with an elaborate bibliography and synonymy. The bulletin is illustrated by eighteen excellent figures two of which we are permitted to reproduce herewith.

Ohio Dragonflies.—Prof. D. S. Kellicott publishes a valuable Catalogue of the Odonata of Ohio², in which 68 species are recorded for the Central and Northern parts of the State. He thinks the number of species found compares favorably with other Mississippi Valley regions of similar latitude. While lakes, ponds and morasses which are favorable homes for the nymphs of the Odonata are not numerous, many and copious streams traverse the State, and the great Ohio, the Beautiful River, on the south, and Lake Erie on the north, with its numerous estuaries and sheltered areas of reed-grown waters, compensate for the unfavorable conditions of the State at large. Whether or not the number of species is decreasing as a consequence of the profound changes due to more complete occupation of the country by civilized man, it is impossible to know. In all probability, the draining of swamps and ponds, the resulting disappearance, in Summer, of former perennial streams, and the contamination of others, will, sooner or later, produce a material reduction.

"The common names of the adults are often as striking as the forms themselves. In the central and southern sections they are almost universally known as 'snake-feeders,' in the north and northwest, as 'spindles,' in the northeast they are often 'devil's darning-needles.' Still, any one of these, and others, may be heard in any section. Among the less common designations may be mentioned the following: 'horse stingers,' 'mosquito hawks,' and 'dragonflies.' The last, used more or less everywhere, is, by far, the most desirable. It expresses so aptly and happily the characteristics of these veritable dragons of the air. No insects possess a more pronounced individuality

² Journal Cincinnati Soc. Nat. Hist., Jan., 1895.

than the Dragonflies; hence, none appeal more strongly to the imagination. Their graceful forms, brilliant colors, and arrow-like flight at once arrest attention and hold the interest; it is, therefore, not surprising that they have received so many and such poetic names. It has been said that "some of these names testify to the wide-spread, but quite unfounded, belief in the harmfulness of these creatures to man." The writer recalls at least one grown person who truly believed they were harmful. This was a school teacher, who impressed upon him, and others of her charge, that the devil's darning-needles about the 'old swimmin' hole' were dangerous, and that they were quite determined to sew up the ears of truants who sought the limpid waters and grass-covered banks of the millrace, rather than the hard and strict ways of the prosy school-room. This is the one 'fact' of Natural History he remembers to have been taught him in the 'district' school."

A Unique Journal.—The Entomological Society of the University of California has recently begun the publication of *The Entomologists Daily Post Card*, especially devoted to the insects of California and adjacent states. It contains synopses, bibliographical references and many useful notes. The subscription price is \$2.00 a year, which may be sent to C. W. Woodworth, Berkeley, California.

Loss by Fire.—We regret to learn from Prof. C. H. Tyler Townsend, now stationed at Brownsville, Texas, that he recently lost by the burning of a warehouse at Las Cruces, New Mexico, his valuable entomological library which was especially rich in Dipterology. Mr. Townsend would be glad to receive separates of papers from entomologists, who we are sure will willingly help to replace his library.

Male Reproductive Organs of Beetles.—Dr. K. Escherich describes³ the genital system in the males of *Carabus*, *Blaps*, and *Hydrophilus*. The *Carabidæ* illustrate the simplest state; a simple blind tube on each side produces spermatozoa, stores the elements and secretes mucus; each tube opens into a somewhat stronger duct, and the two ducts unite in a common ejaculatory canal. The terminal portion in this case is lined with chitin, and is, therefore, ectodermic, not the result of the confluence of the mesodermic vasa deferentia. The region corresponding to testes, vasa deferentia, and seminal vesicle are

³ Zeitschr. f. wiss. Zool. LVII, 620-41.

mesodermic and Escherich calls them "primary organs." Starting from such a simple case as *Carabus* the author shows how the endless variety of complications may be reduced to some order, as illustrations of progressive specialization.—*Journal Royal Microscopical Society*.

Lamp Chimneys for Breeding Cages.—Now that the insect season is opening it will be opportune to give some attention to the methods of rearing larvæ.

The common lamp chimney makes an excellent cage for this purpose and one which commends itself by its cheapness as well as by its convenience.

If the larva is to be reared on a small potted plant, the lamp chimney is placed over it and is pressed down into the earth in the pot.

The top may be closed by tying over it a piece of muslin. A watch glass just large enough to lie within the top makes a very neat method. Lantern globes, which may be used in the same way may be closed by inverting tumblers over them.

Potted plants are not always available when the insects must be fed on leaves or stems. These may be kept fresh by putting the stems in water. A cork just fitting the bottom of the chimney is bored so as to hold a homeopathic vial for the water produces a suitable adaptation of this form of cage.—*Entomologists Daily Post Card*.

The Name of the Southern or Splenic Cattle-Fever Parasite.—The generic name given by Drs. Smith and Kilborne, having been previously used in Zoology, must be dropped. I propose the name *Piroplasma* to replace it.

PIROPLASMA BIGEMINUM (S. & K.)

Syn. *Pyrosoma bigeminum* Smith and Kilborne, Repts. Bn. An. Ind. '91-'92 (1893), p. 212, pls. IV-IX.—WM. HAMPTON PATTON, Hartford, Conn.